AMENDMENTS TO THE CLAIMS

Please amend the claims as shown below. A complete listing of the claims in this case, with their status, is shown below.

1-135. (Cancelled)

136. (Currently amended) A method **of identifying a compound capable of inhibiting cardiomyocyte hypertrophy,** comprising:

(a) contacting a candidate compound with a G protein-coupled receptor comprising an amino acid sequence having at least 95% identity to amino acids 991 to 1,346 of SEQ ID NO:2, **wherein said G protein-coupled receptor has constitutive activity, and** wherein said **G protein-coupled receiptor** ~~GPCR~~ is present on a cell or an isolated membrane thereof;

(b) determining that the compound inhibits signaling by said G protein-coupled receptor, and

(c) determining if the compound inhibits hypertrophy of a heart cell.

137. (Previously presented) The method of claim 136, wherein element (c) comprises:

(i) contacting the compound with a cardiomyocyte cell *in vitro*; and

(ii) determining whether the compound inhibits hypertrophy of the cardiomyocyte cell.

138. (Previously presented) The method of claim 137, wherein the method comprises measuring the size of the cardiomyocyte cell or the expression of atrial natriuretic factor (ANF) by the cardiomyocyte cell.

139. (Previously presented) The method of claim 136, wherein element (c) comprises:

(i) administering the compound to a mammal; and

(ii) determining whether the compound inhibits hypertrophy of the heart of the mammal.

140. (Previously presented) The method of claim 139, wherein the mammal is a rat, a mouse or a pig.

141. (Previously presented) The method of claim 139, wherein element (ii) comprises evaluating congestive heart failure, congestive cardiomyopathy, heart hypertrophy, left ventricular hypertrophy, right ventricular hypertrophy or hypertrophic cardiomyopathy.

142. (Previously presented) The method of claim 136, wherein the method comprises identifying an inverse agonist of the receptor.

143. (Withdrawn) The method of claim 136, wherein the method comprises identifying an antagonist of the receptor.

144. (Withdrawn) A method comprising:

(a) contacting a candidate compound *in vitro* with a plurality of cardiomyocyte cells comprising a G protein-coupled receptor that comprises an amino acid sequence having at least 95% identity to amino acids 991 to 1,346 of SEQ ID NO:2;

(b) determining that the compound reduces a level of expression of the G protein-coupled receptor in said plurality of cardiomyocyte cells; and

(c) determining if the compound inhibits hypertrophy of a heart cell.

145. (Withdrawn) The method of claim 144, wherein element (c) comprises:

(i) administering the compound to a mammal; and

(ii) determining whether the compound inhibits hypertrophy of the heart of the mammal.

146. (Withdrawn) A method comprising:

(a) administering a candidate compound to a non-human mammal having a genome that is modified to provide for expression of a G protein-coupled receptor comprising an amino acid sequence having at least 95% identity to amino acids 991 to 1,346 of SEQ ID NO:2; and

(b) determining if said compound inhibits hypertrophy in the heart of the non-human animal.

147. (Withdrawn) The method of claim 146, wherein said genome is modified to provide for selective expression of the G protein-coupled receptor in a cardiomyocyte.

148. (Withdrawn) A cultured cardiomyocyte cell comprising a recombinant nucleic acid encoding a G protein-coupled receptor comprising an amino acid sequence having at least 95% identity to amino acids 991 to 1,346 of SEQ ID NO:2.

149. (Withdrawn) A non-human mammal having a genome that is modified to provide for selective expression of a G protein-coupled receptor comprising an amino acid sequence having at least 95% identity to amino acids 991 to 1,346 of SEQ ID NO:2 in cardiomyocytes.

150. (Withdrawn) A non-human mammal having a genome that is modified to provide for selective inactivation of a mammalian RUP40 gene in cardiomyocytes.

151. (Withdrawn) A method of treating or preventing a heart disease selected from heart hypertrophy, left ventricular hypertrophy, right ventricular hypertrophy and hypertrophic cardiomyopathy, comprising administering to a mammal in need thereof a therapeutically effective amount of an inverse agonist or antagonist of the mammalian RUP40 G protein-coupled receptor or of a pharmaceutical composition comprising the inverse agonist or antagonist and a pharmaceutically acceptable carrier.

152. (Withdrawn) A method of inhibiting cardiomyocyte hypertrophy, comprising administering to a mammal in need thereof a therapeutically effective amount of an inverse

agonist or antagonist of the mammalian RUP40 G protein-coupled receptor or of a pharmaceutical composition comprising the inverse agonist or antagonist and a pharmaceutically acceptable carrier.

153. (Withdrawn) The method of claim 152, wherein the method inhibits cardiomyocyte hypertrophy in congestive heart failure or congestive cardiomyopathy.

154. (Withdrawn) The method of claim 152, wherein the method inhibits cardiomyocyte hypertrophy in post-myocardial infarction remodeling.

155. (Cancelled)

156. (Previously presented) The method of claim 139, wherein element (ii) comprises evaluating hypertrophy of the heart in congestive heart failure or congestive cardiomyopathy.

157. (Previously presented) The method of claim 139, wherein element (ii) comprises evaluating hypertrophy of the heart in post-myocardial infarction re-modeling.

158. (Previously presented) The method of claim 136, wherein the signaling is production of a reporter protein by a cell.

159. (Previously presented) The method of claim 136, wherein said signaling is production of IP_3 in a cell.

160. (New) A method of identifying a compound capable of inhibiting cardiomyocyte hypertrophy, comprising:

(a) contacting a candidate compound with a G protein-coupled receptor comprising an amino acid sequence having at least 95% identity to amino acids 991 to 1,346 of SEQ ID NO:2, wherein said G protein-coupled receptor has constitutive activity, and

wherein said G protein-coupled receptor is present on a cell or an isolated membrane thereof; and

(b) determining that the compound inhibits signaling by said G protein coupled receptor, wherein said compound is capable of inhibiting hypertrophy of a cardiomyocyte cell.

161. (New) The method of claim 160, wherein the method comprises identifying an inverse agonist of the receptor.

162. (New) The method of claim 160, wherein the signaling is production of a reporter protein by a cell.

163. (New) The method of claim 160, wherein said signaling is production of IP_3 in a cell.